EUROPA Installation

EUROPA INSTALLATION

Software Requirements

- Jam 2.5 - An automated build system *(replacement for* `make`*)*
- Java 1.5 - A platform independent programming language and runtime.
- Doxygen - An automated documentation generator. *(required only to generate API documentation)*
- Ant - A Java-based build tool. *(required only for PSUI)*

Commonly already installed on POSIX systems:

- Subversion - version control system.
- GCC 3.3+ - GNU Compiler Collection.
- Perl - A general purpose scripting language, used for some utility scripts in PLASMA. *(not strictly required)*
- SSH (client) - A secure replacement for remote shells, `cvs` will communicate over `ssh` streams.
- SWIG - Tool that allows us to expose C++ interfaces in Java and other languages
- CVS (client) - Concurrent Versions System, for acquiring the EUROPA$_2$ source code.

While not currently officially supported EUROPA$_2$ should run on Windows:

- Cygwin - A POSIX environment for Microsoft Windows.

Checkout

Checkout the two EUROPA$_2$ packages. In the desired directory, run:

```
svn co https://babelfish.arc.nasa.gov/svn/europa/PlanWorks/trunk/ PlanWorks
svn co https://babelfish.arc.nasa.gov/svn/europa/PLASMA/trunk/ PLASMA
```

Environment Variables

The following are needed (shown here added to `~/.bashrc`):

```
export JAVA_HOME=/home/tsmith/programs/jdk1.6.0_03
export PLASMA_HOME=/home/tsmith/cvs/PLASMA
export LD_LIBRARY_PATH=$PLASMA_HOME/lib:.
```

Another piece you may need:

```
export PATH=$PATH:/home/tsmith/programs/jam/:.   #Add jam to your path
```

Common Targets

Here are the most common ways to build/test E2 components (all are done in the PLASMA directory):

- `jam`: Build E2.

For example, to build an optimized build run jam like this (assumes bash):

```
% VARIANTS=OPTIMIZED jam
```

Or alternatively:

```
% jam -sVARIANTS=OPTIMIZED
```

PSUI

Once everything is built in PLASMA, we recommend building PlanWorks? as well. To do so, follow these extra steps:

1. Copy the PlanWorks/PSUI/test/.ant.psui.properties file into your home directory
2. Edit the workspace.dir variable in that file to point to PlanWorks/PSUI/test
3. Add $ANT_HOME to your environment variables. In `bash` for example:

   ```
   export ANT_HOME=/home/tsmith/eclipse/plugins/org.apache.ant_1.7.0.v200706080842
   ```
4. Add the ant bin to your path. In `bash`, add this to the `.bashrc` file (note that this uses $ANT_HOME and must be later in your file):

   ```
   export PATH=$PATH:$ANT_HOME/bin:.
   ```